

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 6-10, 14, 22 and 24-27 without prejudice and amend claims 11, 28 and 29 and add new claim 30 as follows:

LISTING OF CLAIMS:

Claims 1-10. (Canceled)

11. (Currently Amended) An image pick-up device comprising:

a sensor which picks up an image through a lens;

a pattern image with a predetermined pattern, wherein said predetermined pattern is a ladder pattern of vertical lines, each one of which is present for every n pixels of said sensor, wherein $1 \leq n \leq M/2$ is satisfied for n when M is the total pixel number of said sensor;

a calculation unit which detects shift amounts of center positions of colors against a center position of a standard color for every n pixels by using image data picked up from the pattern image and calculates chromatic aberration factors based on the ~~image data picked up from the pattern image~~ detected shift amounts;

a memory which stores the calculated chromatic aberration factors; and

a correction unit which corrects image data picked up from an original image based on the stored chromatic aberration factors.

12. (Previously Presented) An image pick-up device as claimed in claim 11, wherein the pattern image is formed on a chromatic aberration board.

13. (Previously Presented) An image pick-up device as claimed in claim 12, wherein the chromatic aberration board is fixed in an area near a document platen.

14. (Canceled)

15. (Previously Presented) An image pick-up device as claimed in claim 11, wherein the memory is a line memory.

16. (Previously Presented) An image pick-up device as claimed in claim 11, wherein the chromatic aberration factors are stored in the memory for each color component.

17. (Previously Presented) An image pick-up device comprising:
a sensor which picks up an image through a lens;
a pattern image with a predetermined pattern, wherein said predetermined pattern is a ladder pattern of vertical lines, each one of which is present for every n pixels of a sensor, wherein $1 \leq n \leq M/2$ is satisfied for n when M is the total pixel number of said sensor;
a determining unit which determines a character amount of the image data picked up from the pattern image;
a setting unit which sets chromatic aberration factors based on the character amount; and

a correction unit which corrects image data picked up from an original image by using the chromatic aberration factors set by the setting unit.

18. (Previously Presented) An image pick-up device claimed in claim 17, wherein the device further comprises a memory which stores the determined character amount and outputs the character amount to the setting unit, and the setting unit includes a table which stores the relationship between the chromatic aberration factors and the character amount.

19. (Previously Presented) An image pick-up device claimed in claim 17, wherein the device further comprises an extraction unit which extracts a changing point of the character amount, and a memory which stores the changing point and outputs the changing point to the setting unit, and the setting unit includes a table which stores the relationship between the chromatic aberration factors and the changing point.

20. (Previously Presented) An image pick-up device as claimed in claim 17, wherein the pattern image is formed on a chromatic aberration board.

21. (Previously Presented) An image pick-up device as claimed in claim 20, wherein the chromatic aberration board is fixed in an area near a document platen.

22. (Canceled)

23. (Previously Presented) An image pick-up device as claimed in claim 17, wherein the chromatic aberration factors are set for each color component.

Claims 24-27. (Canceled)

28. (Currently Amended) An image pick-up device as claimed in claim 11, wherein a width of the ladder pattern is equal to a width of a plurality of pixels in an auxiliary scanning direction and a length of the ladder pattern is equal to a length of an entire scanning span in a main scanning direction.

29. (Currently Amended) An image pick-up device as claimed in claim 17, wherein a width of the ladder pattern is equal to a width of a plurality of pixels in an auxiliary scanning direction and a length of the ladder pattern is equal to a length of an entire scanning span in a main scanning direction.

30. (New) An image pick-up device as claimed in claim 17, wherein the character amount includes color saturation.